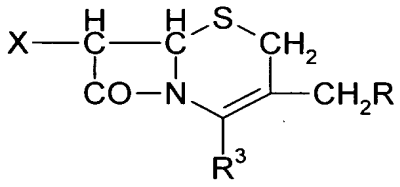
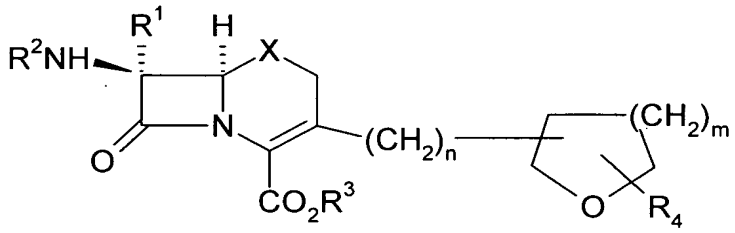
37 and 38 formula xx. The Examiner states that a generic disclosure of the prior art directed to a recognizable small class of compounds having common properties which embrace the claimed compounds, is anticipatory notwithstanding the fact that the claimed compounds are not specifically named.

US Patent No 3,975,383 describes substituted ceph-3-ems of the formula:



where the C-3 position has a CH_2R substituent wherein R is a C_{alkyl} to C_{10} alkyl or substituted alkyl group, a phenyl or halo-substituted phenyl group, a phenylalkyl or (halo- substituted phenyl) alkyl group having from 1 to 6 carbon atoms in the alkyl portion, or a monocyclic heterocyclic group containing from 5 to 7 ring atoms and R^3 and R are as defined in the specification. As noted above, the C-3 is linked to the R group via the $-CH_2-$ methylene group.

The compounds of the present invention are of the formula:



where the C-3 position has a $(CH_2)_n$ group wherein n=0 and m, R_1, R_2, R_3 and R_4 are as defined in the present application. As noted above, n=0 in the present invention, that is, the methylene linker is altogether absent and there is present a more highly substituted methine (-CH-) carbon which forms part of the cyclic moiety. Given this structural difference, Applicants respectfully submit that the compounds described in US Patent No 3,975,383 do not embrace the compounds of the present invention as suggested by the Examiner and the rejection under 35 USC 102(b) should be withdrawn.

Claims 57-58 are rejected under 35 USC 103(a) as being unpatentable over Nayler et al. US Patent No 3,975,383 or Martel et al. US Patent No 3,962,223. The Examiner notes that the prior art teaches a generic group of cephems, where R=cyclohexyl, phenyl, tetrahydropyranyl, etc., in formula VIIIA and X being acylamino groups, column 21 lines 46-60 of US `383, and column 1, lines 65-68 and column 2 lines 1-3. The Examiner then concludes that the compounds of the present invention represent a more limited genus than the reference and further, that it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the genus of the species taught by the reference, because there would have been a reasonable expectation that any of the species would have similar properties, and thus, the same use of the genus as a whole.

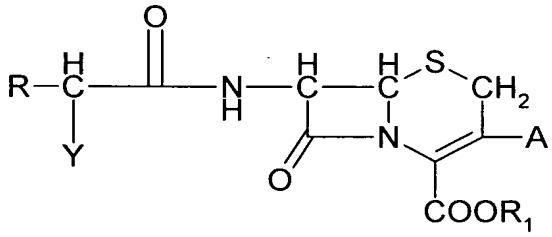
As mentioned above, US Patent No 3,975,383 describes a class of ceph-3-em compounds requiring the presence of a CH_2 methylene linker group attached to the C-3 position.

In contrast, as mentioned above, the class of compounds of the present invention lack such a CH_2 methylene group. The C-3 position of the compounds of the present invention is linked to a methine carbon which forms part of the cyclic moiety. Applicants respectfully submit the compounds of the present invention are therefore not part of a more limited genus of compounds than that described in US Patent No 3,975,383, but rather, are of a different genus altogether.

Furthermore, the C-3 methine carbon substituent compounds of the present invention provide for novel compounds whose properties could not reasonably be predicted based on the structurally different compounds C-3 methylene substituent compounds described in US Patent No 3,975,383. Even minor differences can have a major effect on the activity of compounds. In addition, US Patent No 3,975,383 does not mention or suggest that the claimed compounds, containing the methine group, as noted above, would result in compounds which provide antibacterial activity, yet the novel compounds of the present invention were found to be excellent antibacterial agents.

Applicants therefore respectfully submit that the compounds of the present invention, would not be obvious in view of this structurally different compounds described in US Patent No 3,975,383 and the rejection under 35 USC 103(a) should be withdrawn.

US Patent No 3,962,223 describes a class of compounds of the formula:



wherein R is selected from the group consisting of aminophenyl and R', R' is selected from the group consisting of phenyl optionally substituted with at least one member of the group consisting of halogen and nitro and a 5 to 10 membered heterocyclic group, Y is selected from the group consisting of amino, NHCOOR'', where R'' is alkyl of 1 to 5 carbon atoms, hydrogen and hydroxy, A is selected from the group consisting of alkyl of 2 to 5 carbon atoms and cycloalkyl of 3 to 7 carbon atoms optionally containing a heteroatom and R_1 is selected from the group consisting of hydrogen, easily acid hydrolyzable group and easily hydrogenolysis removable group, with the proviso that when R is aminophenyl Y is other than amino and NHCOOR'' and R1 is hydrogen and when Y is amino, R_1 is hydrogen.

The 7 substituent groups described in US Patent No 3,962,223, as noted above, are structurally different from the 7-acylamino groups present in the claimed compounds. These differences Furthermore, US Patent No 3,962,223 does not mention or suggest such 7-acylamino groups as are present in the compounds of the present invention. It is well known in the art that even minor differences can have a major effect on the properties of compounds.

Applicants therefore respectfully submit that the compounds of the present invention, would not be obvious in view of this structurally different compounds described in US Patent No 3,962,223 and the rejection under 35 USC 103(a) should be withdrawn.

There is no mention or suggestion in the references cited by the Examiner, taken alone or in combination, that would reasonably have predicted the properties of the claimed compounds.

In view of the foregoing, Applicants believe that this application contains patentable subject matter in allowable form. Reconsideration and withdrawal of the rejections and allowance of all pending claims is earnestly solicited.

Respectfully submitted,

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